Fingerprint Access Reader User's Guide for CF10

(Version 1.0)

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CHAPTER ONE INTRODUCTION

1.1 Characteractic

Characteractic	Introduction
Capacity	3000fingerprints，3000cards ic
Hige speed	Less than 1.5s base on full enroll 3000fingerprint
Self-study	Save the fingerprint feature template after each verify make the fingepirnt data beter and beter
Fingerprint image real time	view the fingerprint image with enroll mode by USB communication
Multi verify mode	Convenience using: fingerprint or cards Safe using: cards and fingerprint
Communication safty	Can setting 14 characters communication password. **Note：For device safty, please do setting the communication password before using.**
Standard	Design in full compliance with access control interface Wiegand26/34 standards.

1.2 Technology Parameters

Item	Parameters	
CPU	32-bit RISC Core，120MHz，1MB FLASH，128K SRAM	
Sensor	500DPI optic sensor	
Cards	125KHz read only	
Capacity	Fingerprint： 3000，cards： 3000	
Each user enroll	2 fingerprints，1card	
ID number	Wiegand26 output： 1~16777215 ; Wiegand34 output： 1~4294967295	
Verify mode	"or"mode：fingerprint or card（verify fingerprint or card will ouput wiegand signal）	
	"and"mode：card and fingerprint （ after card verify requires fingerprint will output wiegand signal）more safe	
Responds time	<1.5s（full of 3000 fingerprints）	
FAR	< 0.001 %（security level is 4）	
FRR	< 0.1 %（security 4）	
Distance of card verify	>6cm	
Security level	1 ~ 5，default setting：3	
Access interface	Wiegand mode：Wiegand26 or Wiegand34 can be setting	
	Relay output (option)：passive contact output（NO、NC、COM）	
Communication interface	RS485	9600~115200 BPS can be setting;no parity ;1stop bit;Flow Control: None
	USB	USB1.1 Fullspeed
Input valtage	DC 9V-15V	
Working current	200mA	
Working envirment	Tempreture： -20°C ~ 80°C，Humidity： 20% ~ 80%	

1.3 Apperance

it is convenient and quick installation, the components diagram as following:

1.4 Interface Definition

Controller interface（4cables）		**RS485 interface（2cables）**	
Cable color	**Definition**	**Cable color**	**Definition**
Red	Power supply :(DC 9V～15V）	**White**	RS485A
Black	GND	**Blue**	RS485B
Brown	DATA0		
Yellow	DATA1		

CHAPTER TWO OPERATION INTRODUCTION

CD-ROM to store the two files ARControl.exe (device management software) and user manual. pdf，copy these 2 files to computer and run Mangement software（ARControl.exe），for detailed please read the user guide first.

After enroll the fingerprint/cards to device，and install the device to suitable place and connect with controller can be using .

Note：For device safty ,please do setting the communication password before using.

Verfiy mode setting"card or fingerprint"：

Press fingerprint or card directly, convenience using；

Buzzer "dididi-"two short and one long , blue light bright 0.5s is verify successful

Buzzer "di-di-di-"three long , red light bright 0.5s is verify fail

Verfiy mode setting "card and fingerprint"：

Press card then requris press fingerprint veriy,more safty ；

1.press card first, successful ,buzzer hint "di-di-di"three long，waiting press fingerpirnt

2.press the reference fingerprint：

Buzzer "dididi-"two short and one long , blue light bright 0.5s is verify successful

Buzzer "di-di-di-"three long , red light bright 0.5s is verify fail

Note：press card successful only allowed press three time fingerprint verify. If three time fingerprint failed please press card agin.

NOTE：blue LED flash once every 1 second that means the device sleep, Press a fingerprint or card or there is communication commands from PC will active the device automatically .（CF10 does not have this feature）

CHAPTER THREE SOFTWARE USER GUIDE

3.1 Basic introduction of software

3.1.1 Function button

Run software（ARControl.exe，no need install）display as following Main interface picture，5 function button as following：

Employee Manage： Input employee information（such as：employee ID, Name, Picture）

Device Manage： Used for device parameter setting：

Add and setting devic information（such as：Device Name、Device ID、Communication Mode、ComPort、BaudRate、Wiegand Mode（Wiegand2 6/34）、Identify Mode（fingerpirnt or card/ fingerprint and card）、FP Time Out、Standby、Security level、Password）

Employee Manage： used to enroll or delete employee fingerprint ,card information on the device.

Upload/Download： used to synchronize the fingerprint and card information of device and software database .

1.upload device fingerprint and card data to software database，or

2.download fingerprint and card data from PC to device.

Device Scan： detect the connection of device in the RS485 network（online or offline）

3.1.2 Menu

"File" menu： Setting the password and language of the manage software

3.2 Software using steps：

Connect device to PC（ using USB or RS485），run software ARControl.exe

1.click "All Employee Manage"button to input employee information（ID、Name、Picture）。

2.click "Device Manage"button to setting the device parameter，and add the device to system.

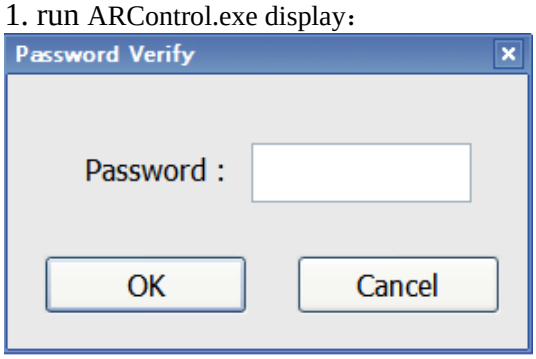
3.click "Employee Manage"button to enroll employee fingerprint and card to device.

Finished.

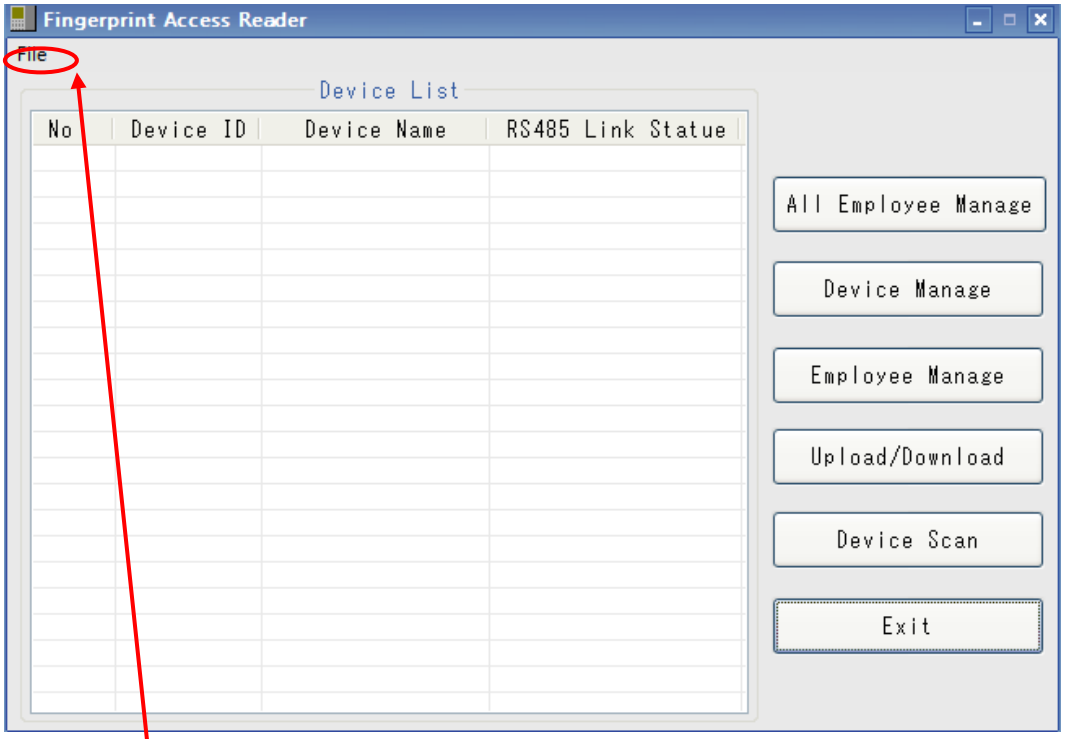
3.3 Detailed user guide introduction

3.3.1 Software setting

1. run ARControl.exe display：

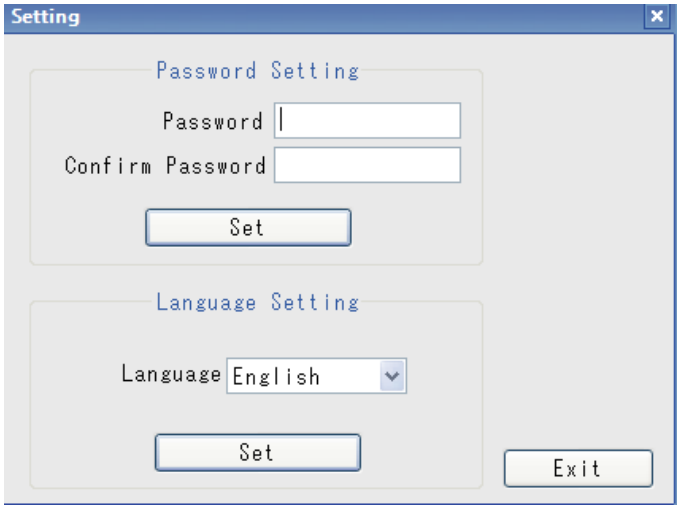


Input software password (default:AR), Password verify ok display Main interface：



2. Setting the password and language of software：

Click "File"→ select"Setting" enter software setting interface：

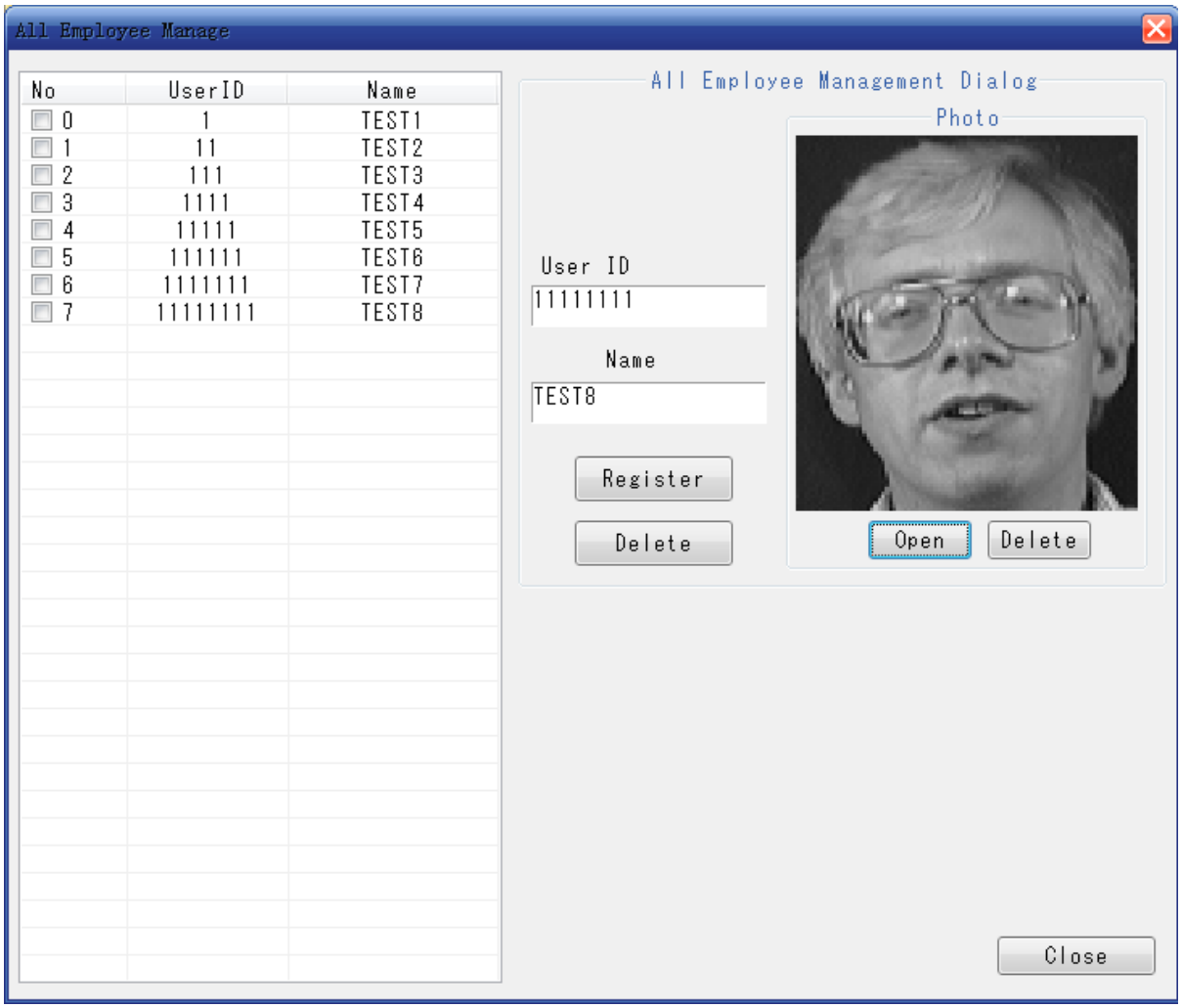


Setting software password：input password and confirm setting

Setting language:：select " Chinese or English" press button of "Set".

3.3.2 All Employee Mange

Press button of "All Employee Mange" in the main interface， display：



1. All new employee：input ID and name and picture (requires *.bmp)

2. Modify employee information：select the employee who will be modify, modify the information and press button of "Modify".

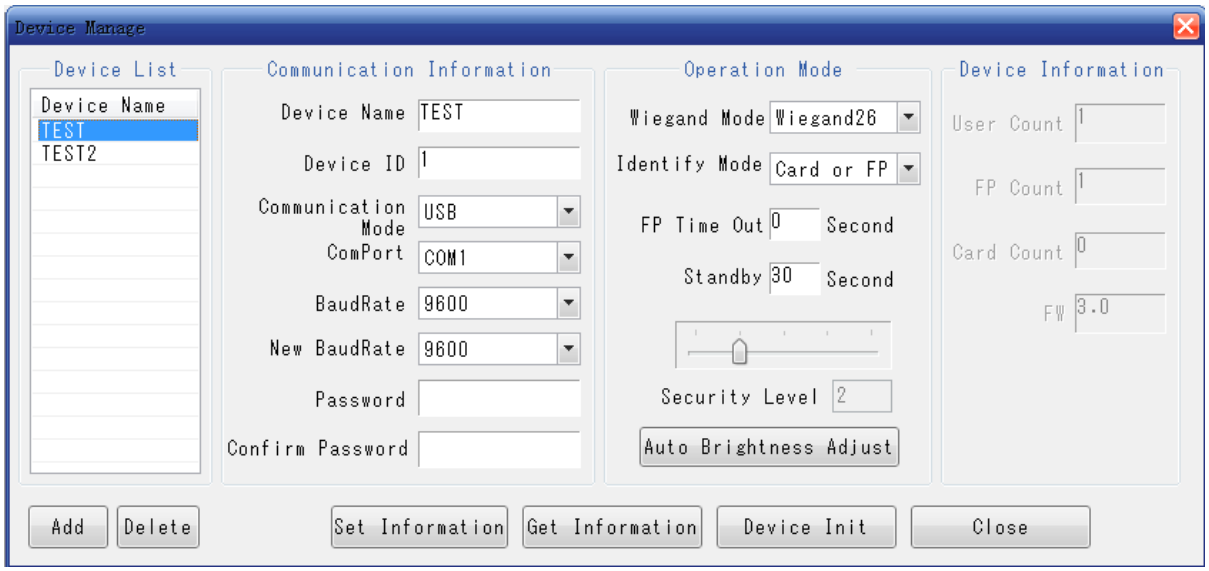
Noet： if modify ID number ,should delete the employee first then input again.

3. Delete employee information:select the employee who will be delete then press button of "Delete".

Finished employe information management,press "Close"to ESC.

3.3.3 Device Mange

Press button of "Device Mange"in the main interface of software,display：



1. Add Device

Device Mange： setting a name for the device.
Device ID： Input Device ID（1~255）, Make sure ID is special for each one .
Comunication Mode： USB or RS232/RS485 can be choose.
ComPort： Appointed the RS232/RS485 COM PORT of PC.
BaudRate： Choose RS232/RS485 for communication requires setting baudrate.
Password： Used to set password for device communicate with the computer to improve the safe use of equipment. Password compose 14 letters and numbers, please do remember the password once setting, if forgot it shoud send back to factory format and all the registration information will be lost.

Note：For device safty, please do setting the communication password before using.

Wiegand Mode： Wiegand26 or Wiegand34 can be choose.
Identify Mode： Card or FP：Card for fingerprint verify success will output wiegand signal.
Card and FP：after verfiyed card requires verify fingerprint successful will output wiegand signal.
FP Time Out： 0~60s can be setting，default setting 30s，used for enroll fingerprint：To detect if press fingerprint after commend, time out will esc enroll.
Setting to "0"is no time out distinguish.
Standby： can setting 0~60s，Device will standby without any operation in the setting time. The device will be activated if press a finger or a proximity card or there is communication command from PC. Parameter value of "0" means no sleep, default setting is: 60 seconds.

Security level： can set 1~5 levels，default setting is 3，level 1 is the most high security level.

After setting the above parameter press button of "Add"will regist the device to software.

2. Set/Modfiy device parameter

Select the device in the Device List, input above parameters.
If using USB communication mode, press "Set Information" will setting successful.
If using RS485 communication mode, make sure the setting of Device ID and baud rate same to present device.
Finished setting, device will working as the setting parameters.

3. Get device information

Select the device in the Device List, press "Get Information"will get the device parameter and enrolled using data also hard ware version.

Note:

1. RS485 communication to get device information requires input the right Device ID and BaudRate.
2. if do not know the device ID and baud rate, please using USB for get the information first, also it requires remember the communication password.

4. Device Init

Select the device in the Device List , press "Device Init"， all the enrolled user information will be deleted , and resume to the following default parameters:

Name	Default setting
Device ID	0
Baud rate	9600BPS
Wiegand mode	Wiegand26
Verify mode	Card or fingerprint
Security level	3

Note:

device Init will not delete communication password.

5. Auto Brightness Adjust

After long time using, the sensor light will low down, it may lower the identify rate, in this case please modify the lightness.

Note: Device has been done the brightness control, so no need modify all the time.

Modify methed as following:
Select device in the Device List, press "Anto Brightness Adjust", will hint "please screen sensor's light", cover the sensor windows with hand, press "OK"to confirm.

After finished setting information, press "close" to ESC.

6. Delete Device

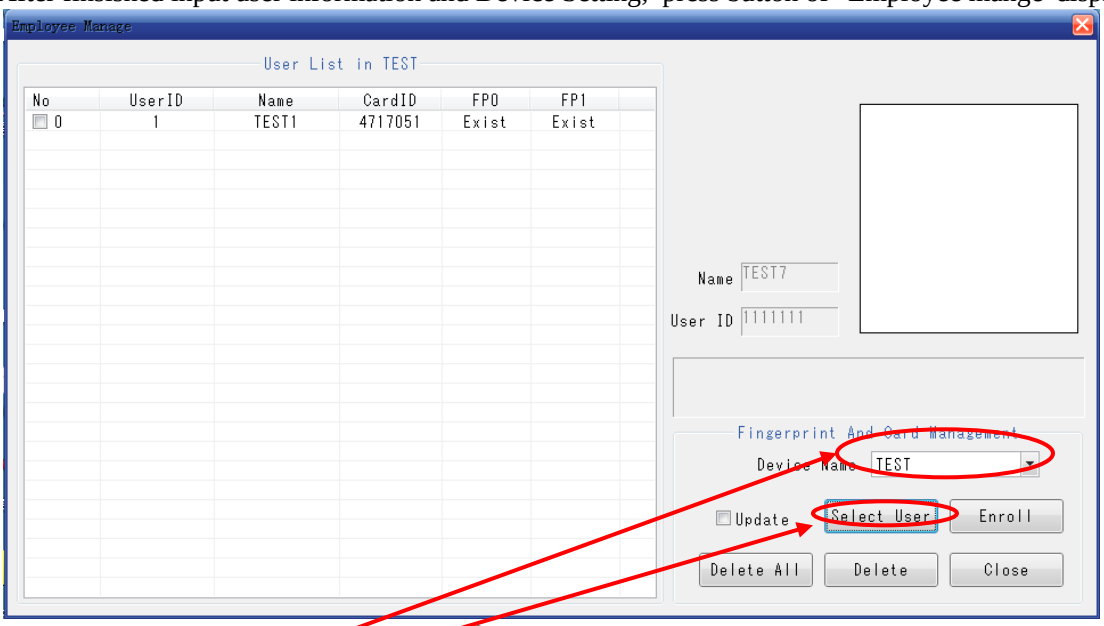
Select the deivce in the Device List, press button of "Delete".

Note: Delete device will delete all the user information in the database, please use this operation carefully.

Once delete the deivce mistake, please using the function of "Upload/Download" to back up device's user information.

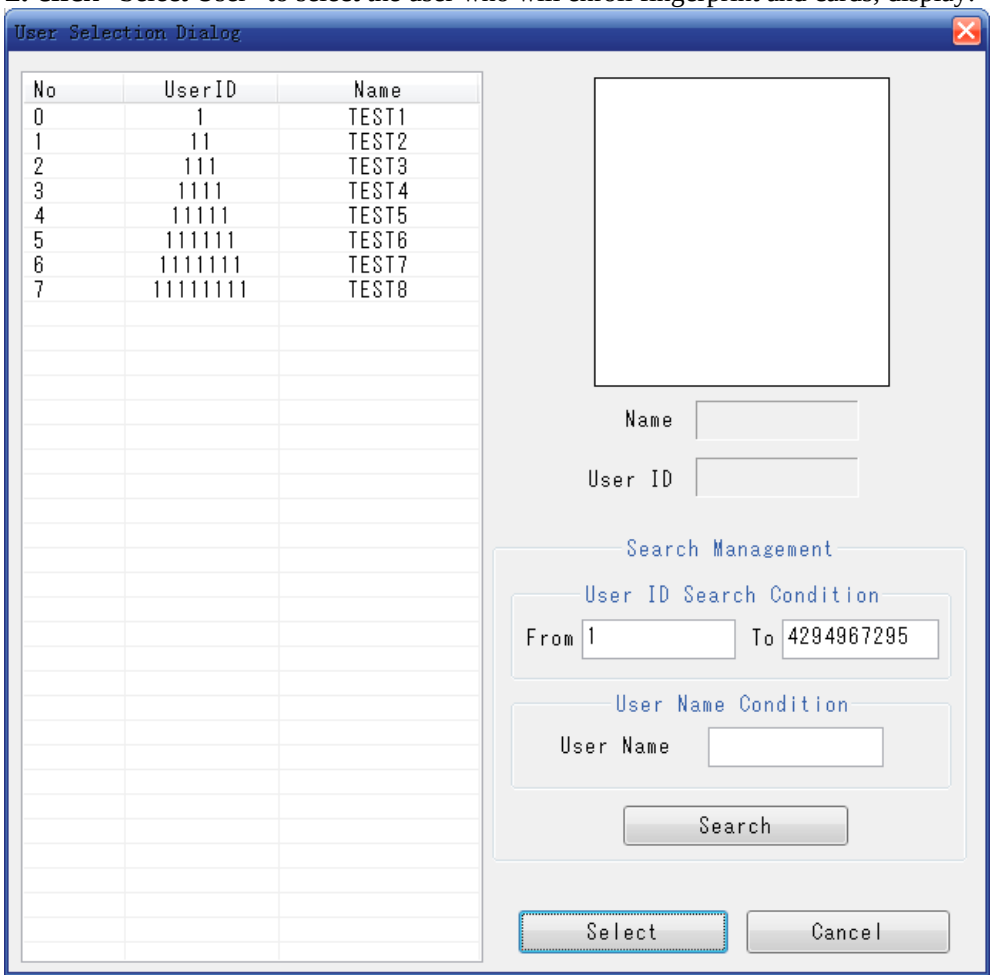
3.3.4 Regist ,delete fingerprint/card

After finsished input user information and Device Setting, press button of "Employee mange"display:



1. select the "deivce name" to enroll fingerprint and cards

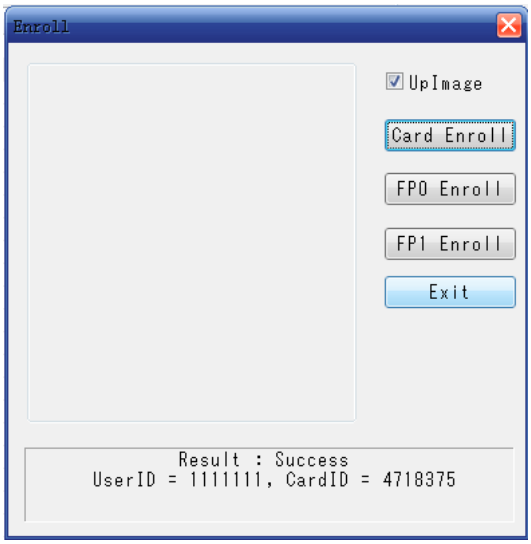
2. click "Select User" to select the user who will enroll fingerprint and cards, display:



3. Enroll fingerprint and cards：select user who will enroll fingerprint, press "Select" back to Employee Mange inteface，press "Enroll" to enter enroll interface：

Note：one user can enroll 2pcs fingerprint and 1pcs card

If the user have been enroll data in the device, now want to update the fingerprint or card, requires tick the check box "Update", or software will forbid to enroll for this user.



A、 Enroll fingerprint：

Connect with USB and tick the check box "Upimage",can see the fingerpring image in real time when scan fingerprint see the fingerprint image.

Click "FP0 Enroll"， press one fingerprint, system hint "Uploading Image"→"Release your Finger" →"two more"→"release your finger"→"one more" →"release your finger"， press three time to finish fingerprint enroll.

Click "FP1 Enroll"，step same as above to enroll second fingerprint.

B、Enroll card：

Click " Card Enroll" in the "Enroll" interface, system hint "Input your Card"， press card after system read card hint "Release your Card"， detect left card the device hint successful result：
"result = success and reference user's ID= and CardID=".

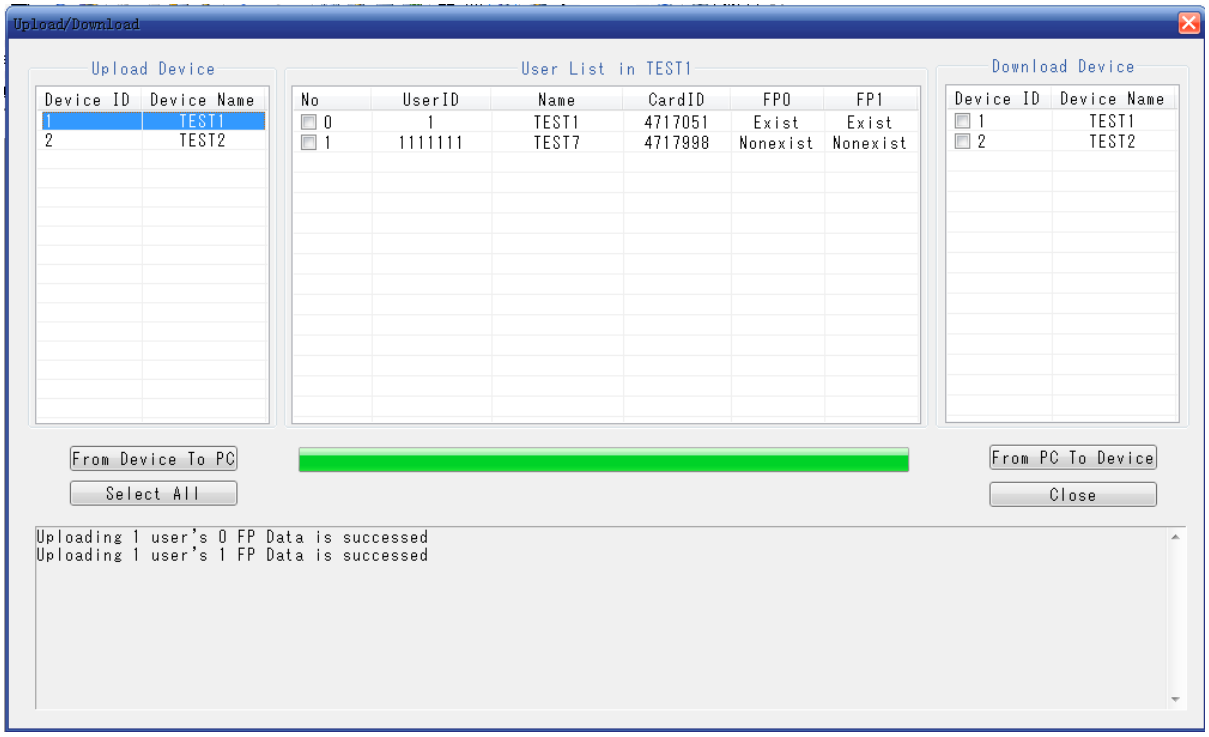
Click "Exit" finished enroll and back to " employee mange" interface→click "select user"choose next user's →click "Enroll" to enroll all users as same steps.

4. Delete user in device：in the "Employee Mange" interface, select the device, and select the users in device，clink"Delete"will delete the appointed user from device.

5. Delete all user in device： in the "Employee Mange" interface, select the device, clink "Delete all" will delete all users from device.

3.3.5 Upload/Download

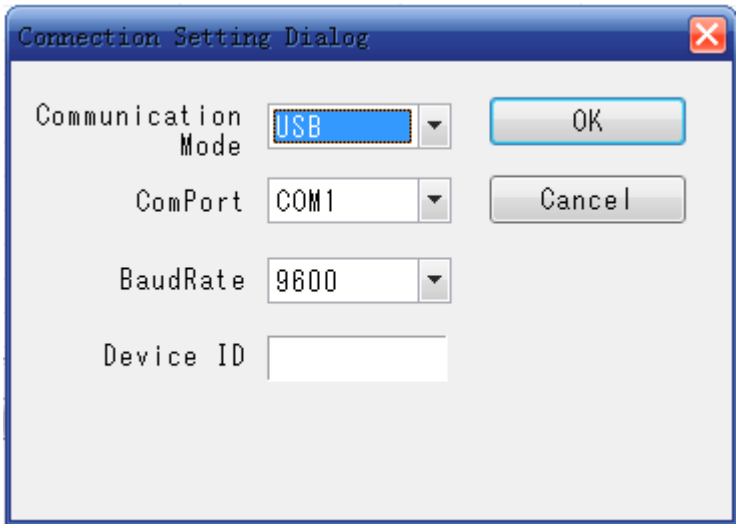
Upload/Download is used to synchronization the fingerprint and card data of device and Dada Base in PC. Click "Upload/Download" on the Main interface, display:



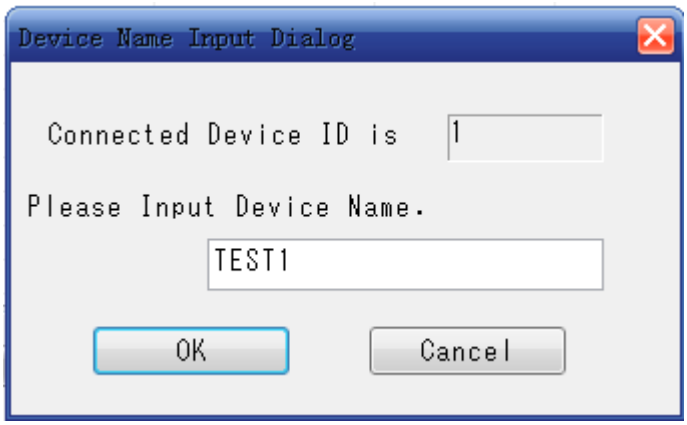
1. Upload： Back up the fingerprint and card data from device to software database.

A. If the device deleted mistake, need upload

Click "from device to PC" in the Upload/Download（no need select device），display:



After setting all the parameters,click "ok"， display：



Type device name in the interface of "Device Name Input Dialog",then Click "ok",

display "Upload/Download" interface：

The blue progress bar show the upload progress

Under show the success or fail of present uploading message

B. Upload the fingerprint and card data to new software in PC

Input all the emaployee information in "All Employee Manage"→ using the operation steps of "A" upload each device's data to computer.

2. Download：Download the fingerprint and card data from software to device. It suitable to following cases：

A. After Init the device, all enrolled data in device were deleted

B. Used for multi devices used together can enroll all data in one device then Download to others devices.

Operation steps:

1. Select the device in the left of "Upload/Download" interface→all users information list in middle box
2. Select the users or all users click "select all"
3. Select the device which will be download（tick the check box before the device ID）
4. Click "from PC to device ":The blue progress bar show the upload progress,Under show the success or fail of present uploading message）
5. Finished download clink "close"

3.3.6 Device Scan（detect the state of device in RS485 Network）

Used to detect the state of RS485 network， mark device online or offline .
Click "Device Scan"will ok in Main interface.

APPENDIX ONE APPLICATION INFORMATION

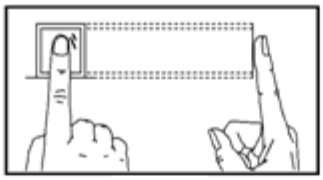
A1.1 Backup DataBase

Run softwar ARControl.exe，will creat blow 3 database files under the directory：

1. Emp.db (Employee information)
2. DeviceInfo.db（device setting parameter database）
3. EnrollData.db （employee enroll database）

After all the devices added to software and input all the employee information, and enroll all employee's fingerprint and card to device,also put into formal using, copy above 3 database files to save.

A1.2 Right pose of press finger



Right Pose

*Following is Wrong Pose

Put the core of the finger on the core of capturing window

Sidelong Pose　　Lower Pose

APPENDIX TWO INSTALLATION AND CONNECTION

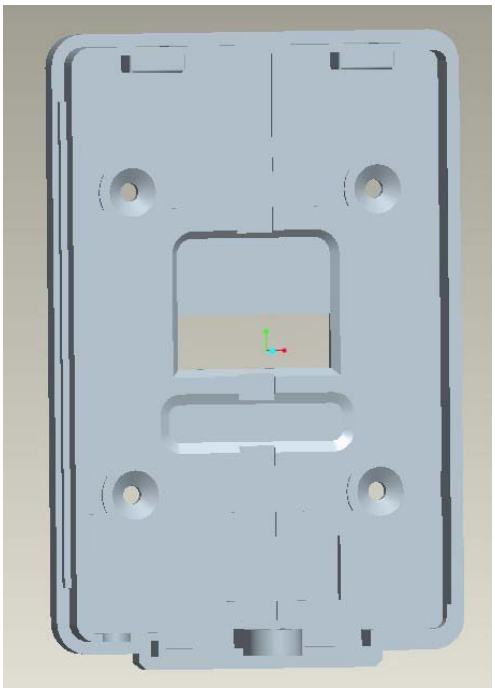
A2.1 CF10 Connection defination：

Red: Power supply input（DC9V～15V）
Black: GND
Brown：DATA0
Yellow: DATA1
White: RS485A
Blue: RS485B

A2.2 Installation

After connection cable finished, mount the device on wall

1. Pull the back plate shown below to open



2. With four screws to secure the appliance to the hole in the 4.
3. conect the deive with controller and computer according to the above definition.

Note：For device safty ,please do setting the communication password before using.